Notice of Allowability	Application No. 10/092,963	Applicant(s) MURATA, SHIGERU	
	Examiner Anh-Vu H. Ly	Art Unit 2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *application filed March 05, 2002*.

2. ☒ The allowed claim(s) is/are *1-10 and 12-14 renumbered as 1-13 respectively*.

3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
   a) ☐ All b) ☐ Some* c) ☐ None of the:
      1. ☐ Certified copies of the priority documents have been received.
      2. ☐ Certified copies of the priority documents have been received in Application No. _____ .
      3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

   * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
   (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
   (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

   Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date March 05, 2002
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____ .
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

DETAILED ACTION

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Brian Hennessey on August 15, 2006.

The application has been amended as follows:

In The Claims

1. (Currently Amended) A circuit termination method ~~of a circuit terminating apparatus with a terminal side interface of a frame synchronization method taking a multi frame configuration,~~ comprising:

updating a transmission speed according to a condition of a circuit between a first circuit terminating apparatus and a second circuit ~~termination~~ terminating apparatus,

performing a service suspension and resumption of a predetermined bit position common to each frame of ~~the~~ a multi frame, ~~and~~

adjusting inputting speed and outputting speed of a terminal connected to the first circuit terminating apparatus to the updated transmission speed between the first circuit terminating apparatus and the second circuit terminating apparatus, and

a re-negotiation is performed between the first circuit terminating apparatus and the second circuit terminating apparatus starting from a speed faster than a contracted speed of the

terminal connected to the first circuit terminating apparatus when frame synchronization between the first circuit terminating apparatus and the second circuit terminating apparatus monitored is lost for a period longer than a predetermined period, and the synchronization is established again for a period longer than a predetermined period.

2. (Currently Amended) A circuit termination method ~~of a circuit terminating apparatus with a terminal side interface of a frame synchronization method taking a multi frame configuration,~~ comprising:

updating a transmission speed according to a condition of a circuit between a first circuit terminating apparatus and a second circuit ~~termination~~ terminating apparatus,

performing a service suspension and resumption of a continuous bit string of a predetermined length starting from a predetermined bit position of a predetermined frame of ~~the~~ a multi frame, ~~and~~

adjusting an inputting speed and an outputting speed of a terminal connected to the first circuit terminating apparatus to the updated transmission speed between the first circuit terminating apparatus and the second circuit terminating apparatus, and

a re-negotiation is performed between the first circuit terminating apparatus and the second circuit terminating apparatus starting from a speed faster than a contracted speed of the terminal connected to the first circuit terminating apparatus when frame synchronization between the first circuit terminating apparatus and the second circuit terminating apparatus monitored is lost for a period longer than a predetermined period, and the synchronization is established again for a period longer than a predetermined period.

3. (Currently Amended) A circuit termination method ~~of a circuit terminating apparatus with a terminal side interface of a frame synchronization method taking a multi frame configuration,~~ comprising:

checking whether a synchronous speed established by a first circuit terminating apparatus and a second circuit terminating apparatus at an operation start is faster or slower than a contracted speed of a terminal connected to the first circuit terminating apparatus,

performing a service suspension and resumption of a predetermined bit position common to each frame of ~~the~~ a multi frame to update the synchronous speed, if the established synchronous speed is slower than the contracted speed, ~~and~~

adjusting an inputting speed and an outputting speed of the terminal to the updated speed between the first circuit terminating apparatus and the second circuit terminating apparatus, and

a re-negotiation is performed between the first circuit terminating apparatus and the second circuit terminating apparatus starting from a speed faster than a contracted speed of the terminal connected to the first circuit terminating apparatus when frame synchronization between the first circuit terminating apparatus and the second circuit terminating apparatus monitored is lost for a period longer than a predetermined period, and the synchronization is established again for a period longer than a predetermined period.

4. (Currently Amended) A circuit termination method ~~of a circuit terminating apparatus with a terminal side interface of a frame synchronization method taking a multi frame configuration,~~ comprising:

checking whether a synchronous speed established by a first circuit terminating apparatus and a second circuit terminating apparatus at an operation start is faster or slower than a contracted speed of a terminal connected to the first circuit terminating apparatus,

performing a service suspension and resumption of a continuous bit string of a predetermined length starting from a predetermined bit position of a predetermined frame of ~~the~~ a multi frame to update the synchronous speed, if the established synchronous speed is slower than the contracted speed, ~~and~~

adjusting an inputting speed and an outputting speed of the terminal to the updated speed between the first circuit terminating apparatus and the second circuit terminating apparatus, and

a re-negotiation is performed between the first circuit terminating apparatus and the second circuit terminating apparatus starting from a speed faster than a contracted speed of the terminal connected to the first circuit terminating apparatus when frame synchronization between the first circuit terminating apparatus and the second circuit terminating apparatus monitored is lost for a period longer than a predetermined period, and the synchronization is established again for a period longer than a predetermined period.

5. (Currently Amended) A circuit terminating apparatus ~~with a terminal side interface of a frame synchronization method taking a multi frame configuration,~~ comprising:

a service control unit which generates a clock pulse, and performs a service suspension according to user conditions and circuit conditions, said service control unit performing a service suspension and resumption of a predetermined bit position common to each frame of ~~the~~ a multi frame when a transmission speed needs to be updated due to a change in circuit conditions

between a first circuit terminating apparatus and a second circuit terminating apparatus, ~~and~~ adjusting an inputting speed and an outputting speed of a terminal connected to the first circuit terminating apparatus to the updated transmission speed between the first circuit terminating apparatus and the second circuit terminating apparatus, and a re-negotiation is performed between the first circuit terminating apparatus and the second circuit terminating apparatus starting from a speed faster than a contracted speed of the terminal connected to the first circuit terminating apparatus when frame synchronization between the first circuit terminating apparatus and the second circuit terminating apparatus monitored is lost for a period longer than a predetermined period, and the synchronization is established again for a period longer than a predetermined period.

6. (Currently Amended) A circuit terminating apparatus ~~with a terminal side interface of a frame synchronization method taking a multi frame configuration,~~ comprising:

a service control unit which generates a clock pulse, and performs a service suspension according to user conditions and circuit conditions, said service control unit performing a service suspension and resumption of a continuous bit string with a predetermined bit length starting from a predetermined bit position of a predetermined frame of ~~the~~ a multi frame when a transmission speed needs to be updated due to a change in circuit conditions between a first circuit terminating apparatus and a second circuit terminating apparatus, ~~and~~ adjusting an inputting speed and an outputting speed of a terminal connected to the first circuit terminating apparatus to the updated transmission speed between the first circuit terminating apparatus and the second circuit terminating apparatus, and a re-negotiation is performed between the first

circuit terminating apparatus and the second circuit terminating apparatus starting from a speed faster than a contracted speed of the terminal connected to the first circuit terminating apparatus when frame synchronization between the first circuit terminating apparatus and the second circuit terminating apparatus monitored is lost for a period longer than a predetermined period, and the synchronization is established again for a period longer than a predetermined period.

7. (Currently Amended) A circuit terminating apparatus ~~with a terminal side interface of a frame synchronization method taking a multi frame configuration,~~ comprising:

a service control unit which generates a clock pulse, and performs a service suspension according to user conditions and circuit conditions, said service control unit checking whether a synchronous speed established between a first circuit terminating apparatus and a second circuit terminating apparatus at starting operation is faster than a contracted speed of a terminal connected to the first circuit terminating apparatus, performing a service suspension and resumption of a predetermined bit position common to each frame of ~~the~~ a multi frame to update the synchronous speed, if the established synchronous speed is below the contracted speed, ~~and~~ adjusting an inputting speed and an outputting speed of the terminal to the updated speed established between the first circuit terminating apparatus and the second circuit terminating apparatus, and a re-negotiation is performed between the first circuit terminating apparatus and the second circuit terminating apparatus starting from a speed faster than a contracted speed of the terminal connected to the first circuit terminating apparatus when frame synchronization between the first circuit terminating apparatus and the second circuit terminating apparatus

monitored is lost for a period longer than a predetermined period, and the synchronization is established again for a period longer than a predetermined period.

8. (Currently Amended) A circuit terminating apparatus ~~with a terminal side interface of a frame synchronization method taking a multi frame configuration,~~ comprising:

a service control unit which generates a clock pulse, and performs a service suspension according to user conditions and circuit conditions, said service control unit checking whether a synchronous speed established by ~~the~~ a first circuit terminating apparatus and a second circuit terminating apparatus at starting operation is faster than a contracted speed of a terminal connected to the first circuit terminating apparatus, performing a service suspension and resumption of a continuous bit string of a predetermined bit length starting from a predetermined bit position of a predetermined frame of ~~the~~ a multi frame to update the synchronous speed, if the established synchronous speed is below the contracted speed, ~~and~~ adjusting an inputting speed and an outputting speed of the terminal to the updated speed established between the first circuit terminating apparatus and the second circuit terminating apparatus, and a re-negotiation is performed between the first circuit terminating apparatus and the second circuit terminating apparatus starting from a speed faster than a contracted speed of the terminal connected to the first circuit terminating apparatus when frame synchronization between the first circuit terminating apparatus and the second circuit terminating apparatus monitored is lost for a period longer than a predetermined period, and the synchronization is established again for a period longer than a predetermined period.

11. (Canceled).

Allowable Subject Matter

2. Claims 1-10 and 12-14 are allowed.

The following is an examiner's statement of reasons for allowance:

The prior art does not teach or fairly suggest a re-negotiation is performed between the first circuit terminating apparatus and the second circuit terminating apparatus starting from a speed faster than a contracted speed of the terminal connected to the first circuit terminating apparatus when frame synchronization between the first circuit terminating apparatus and the second circuit terminating apparatus monitored is lost for a period longer than a predetermined period, and the synchronization is established again for a period longer than a predetermined period, as specified in independent claims 1-8.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kanerva et al (US Patent No. 6,240,076 B1) discloses asymmetric high-speed data transmission apparatus and method in a mobile communications network.

Polley et al (US Patent No. 5,999,563) discloses rate negotiation for variable-rate digital subscriber line signaling.

Clanton et al (US Patent No. 5,734,867) discloses method, device, microprocessor and microprocessor memory for instantaneous preemption of packet data.

Sydon et al (US 6,693,885 B1) discloses a TDMA radio transmission system.

Kobayashi et al (US Patent No. 5,719,859) discloses a radio communication system for performing communications by TDMA.

Liu et al (US Patent No. 6,252,900 B1) discloses forward compatible and expandable high speed communications system and method of operation.

Ue et al (US Patent No. 6,400,929 B1) discloses radio communication device and method of controlling transmission rate.

Hasegawa et al (US Patent No. 6,046,983) discloses dynamic rate control system.

Kondo (US Patent No. 5,748,624) discloses method of time-slot allocation in a TDMA communications system.

Murai et al (US Patent No. 6,628,667 B1) discloses variable rate transmitting method.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anh-Vu H. Ly whose telephone number is 571-272-3175. The examiner can normally be reached on Monday-Friday 7:00am - 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham can be reached on 571-272-3179. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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